



U.S. POSTAGE PAID  
PERMIT no. 320  
MENLO PARK, CA. 94025

**TO:**

RETURN REQUESTED:  
PAARA P.O. BOX 911  
MENLO PARK, CA. 94025

Andy Korsak VE3FZK/W6  
504 Lakemead Way  
Redwood City CA 94062

**vol. 27**

**MAY  
1981**

# PAARA

## Graphs



**palo alto  
AMATEUR  
RADIO ASSN.**

MENLO PARK C.D. RADIO CLUB, K6YQT

# SHAVER RADIO, INC.

(408) 998-1103

1378 S. BASCOM AVE. SAN JOSE, CALIF.

DAVID SHAVER  
K6DTX

SALES  
SERVICE  
INSTALLATION

## More than a dream.

### The Santec HT-1200

4W SYNTHESIZER RADIO MODULE

- 4W Minimum / 1W Low (True low power, no resistor)
- 10 Memory Channels with Auto Memory Initialize Digital Display — Reliable Long-Life, Rugged LED's
- 11 4 Bit Microprocessor / Keyboard Control
- 16 Tone Touchtone Generator
- Single Button Memory Recall
- Heavy Leather Case (Optional)
- 800 Channels plus MARS (143.0 — 149.995)
- Keyboard Entry of All Frequencies, All Digits plus Autotone
- Up/Down Bandscan (Stops on signal, resumes scan on sq.)
- Up/Down Memory Scan (10 memories)
- Up/Down Bandsearch (Stops on signal, locks entry)
- Up/Down Memory Search (Locks on first used memory)
- Scan Steps in 5 kHz Increments, Keyboard Selected
- Preprogrammed : 600 kHz
- Any Split Programmable by the User
- Automatic Display or Continuous Readout

Sale subject to FCC Certification to Part 15.



When is a handheld a radio module? When it is designed from the start to be part of a complete 25 or 50W mobile system. Not only can the Santec HT-1200 operate on its own Ni-Cd battery, but also it can function respectably as the center of a modular synthesized high power mobile.

☐ The HT-1200 produces at least 4 watts on all the ham frequencies, from 144.000 to 147.995, for the punch needed for repeater/handheld communications. The low power mode is true low current drain. ☐ A Texas Instruments TMS 1000 microprocessor powers the brain of the unit, providing keyboard entry of all digits down through the kHz digit. ☐ In addition to providing

10 programmable memories, the microprocessor programs 10 different popular frequencies into the memory on initial start-up. These may be overwritten by the user when programming his favorites. This added convenience is standard in the Santec.

Compare the features and functions that come with the competition's popular 25 watt mobile units and you will find the HT-1200 system has them all beat! This dream of a radio is more than a dream, it's a reality. See us at the Dayton Hamvention for a hands-on demonstration of all the capabilities of the Santec HT-1200.

\*\*\*\*\*

PAARAgaphs is the official organ of

The Palo Alto Amateur Radio Association and the Menlo Park Civil Defense Radio Club

\*\*\*\*\*

1981 CLUB OFFICERS

President	:	Gerry Tucker	WA6LNV	326 4908
Vice President	:	Dave Daniel	KB6WP	325 3347
Secretary	:	J. MacKaig	N6YV	
Treasurer	:	George Nixon	GI3OEN	854 6645
Trustee, K6OTX	:	Fred Canham	K6YT	948 9238
Property	:	Ed Fairbanks	W6AIN	322 0319
ARES Officer	:	Steve Stuntz	K6FS	322 4952

BOARD OF DIRECTORS

Chairman	:	Gerry Tucker	WA6LNV
Members	:	John Buonocore	KA6CUG
		Kevin Lapp	WA6PHC
		Gerry Wagstaffe	W6NIR
		Ed Fairbanks	W6AIN
		Bill McElhinney	KA6LZI
		Bob Wheeler	K6SEM

\*\*\*\*\*

PAARA POLICIES

Membership in PAARA is \$6.00 per calander year (payable in January) which membership includes a subscription to PAARAgaphs. Freebe distribution to those who indicate an interest in the Club and as an inducement to their becoming members, and is subject to change with changing interests in the Club. Make payment to:

PAARA, P.O. Box 911, Menlo Park, CA 94025

PAARAgaphs STAFF

Editor	:	Bob Baum	W6BFH
Production	:	Dave Daniel	KB6WP
Advertising	:	Swede Swenson	N6CHL
Printing	:	Mellonics	A1OK
Mailing	:	Ed Fairbanks	W6AIN
Cover	:	Sue Lindner	LØVLY

Written contributions to the P.O. Box above, or: c/o Editor, 1043 Del Norte Av., Menlo Park, CA 94025

\*\*\*\*\*

R E G U L A R . M E E T I N G

Friday

7:30 p.m.

Rooms 15-17, Menlo Park Recreation Center, Civic Center, Alma at Hielke Drive  
Menlo Park

AMATEURS AND RADIO TOWERS

by

Emery Boring W6IIF

Emery is a Sales Engineer for W. J. Purdy representing Rohn Towers. Topics discussed will be location, structure, types of towers, wind loads, rules and regulation of structure. Illustrated with slides.

CIRCLE THE DATE

May 1

In the future: Board Meeting May 6; EMARC Flea Market May 9, Meeting June 5, Field Day Work weekend June 19-21, Field Day Set-up June 26, Field Day June 27-28....

TO THOSE WITH RED DOTS ON THEIR MAILING LABEL:

There is no record that your 1981 dues have been paid.

PAST CORNER: Dave, KB6WP, opened the meeting with much table pounding to break up conversations that were underway. When seats were taken, some were left standing. So additional chairs were brought in to make all 59 attendees comfortable.

Guests were introduced, including Marc Oeschger, (NC) from Palo Alto, Walter Murray, (NC), Mountain View, Doug Thompson, (NC), Santa Clara, Patty Winters, N6BIS, and Steve Greenberg (NC), Menlo Park, and Henry Makler, KA6OJI, from Los Altos Hills. A good crew of guests who were given a warm welcome.

Mac, N6YV, told of the woes of setting a picnic date and opted for April 26, admittedly a short fuse and a challenge to PAARAgaphs to meet a delivery date in time to reach the membership. A show of hands indicated a good turnout and a map was promised for inclusion in the paper.

Gerry, W6NIR, reported on flea market activity — the next in line is for EMARC, May 9, at Foothill College, and then at Rancho Cordova on May 31.

John, KA6CUG, gave a report on the Post 599 450MHz repeater which seems to be progressing in a professional way at an amateur rate. Look for it soon.

Fred, K6YT, took the floor with an interesting gadget in hand—a double compound tool post supposedly to be used to turn down (smooth) the armature of the exciter to the "new" Club alternator. Lamenting his temporary loss of a machine shop, he volunteered drawings to someone who would volunteer to make the rack for it to fit the generator frame. Frank, WA6QPV raised his hand and got the job. Relief was written all over Fred's face at that turn of events. Fred then distributed Club badges to those who recently ordered them and nicely fielded complaints from those who either had, or thought they had, ordered them.

Dave, WP, started a report on interesting operating events during the recent past. His comments were shaded by those of Nolan, KB6LT and Loren, WA6ENC. Tom, KH6DZB, reported John, KA6FRC, wasn't doing much operating but was studying to upgrade.

The meeting broke for coffee, chocolate, cookies, and a 180° phase shift in seating so those who were in the back were in the front for Gordon's, W6PCP's discussion to follow ragchewing sessions.

Gordon gave the history of SSTV in a few minutes and then chalk boarded block diagrams of two systems to go with: a \$6000 model or a \$145 model—the latter even if you have no gonk you can utilize in the shack. The development of the flying whatchamacallit was interesting and the demonstrations convincing. By golly SSTV does work.

After a raffle of goodies the meeting broke up about 9:45, with shouts from the back table: "See you at the picnic—next meeting MAY DAY".

BOARD CORNER: Bob, K6SEM, wound and set the bulkhead clock in the Club trailer about 7:25 and the meeting started exactly at 7:30 p.m. Around the conversation pit sat George, GI3OEN, Gerry, WA6LNV, Gerry, W6NIR, John, KA6CUG, Ed, W6AIN, Kevin, WA6FHC, Bob, K6SEM, and Mac, N6YV.

Hangfires included a report from Bob, SEM, that the Club insurance program was well founded and that a new understanding between the carrier and PAARA had been reached.

Mac, N6YV, reported that the only Sunday dates available for a picnic at Huddart Park between now and next fall were Memorial Day and the 4th of July—except for April 26, which he reserved for PAARA.

Dave, KB6WP, indicated all his choices for speakers for the May meeting were a little elusive but he had no great concern that he would reach one.

New business centered on Field Day activities. Bob, SEM, suggested that with 299 (or more) stations in the 4-A class with more than 5000 operators out to "get" PAARA this year we had work to do. Cam, K6RU, is spending evenings reworking antennas, and Fred, YT, is making sure generators, towers, and all the rest is ready to be loaded on trailers for the big day.

Bob gave a time-table for the events and stressed a need for help the Friday before F.D. June 19 and on Saturday and Sunday, June 20 and 21 to help organize the transportation of gear.

Bob, SEM, will be the phone "captain" while Cam, K6RU, will lead the CW crew. Those interested in operating should contact either for assignments. Those who want to learn, or back-up operators, will be used as checkers. Ed, W6AIN, alluded that checking was often more difficult than operating.

New blood will be needed for the knockdown Sunday afternoon, June 27. Removal of equipment is not back-breaking, but when operators, checkers and support crews are bone weary from the 24-hour program their stumbling could cause a problem.

Dave, WP, asked if anyone had heard of entries in the PAARA contests. Gerry, NIR, said if no one had entered, he would. He claims two phone patches in 26 seconds. That outdid Bob, who had somehow talked to Doug, KA5DQR, approaching the English Channel. Of course, no one considered Cam, K6RU, would come near winning. Logs of contestants should be brought to the May meeting for judgment—both ARRL DX Contest and the '73 WPX Phone Contest.

Mac, N6YV, got back to F. D. discussion suggesting a sign-up list be available at the next meeting. Figure out when you can be available, what you want to do, what you can do and what you don't want to do, and then sign up at the May meeting.

The meeting broke up about 8:45 with some going down the winding road to refreshments while others went home to finish Masada. The next effort by the Board will be May 6. Any and all are invited to the Club trailer, just inside the Guard Post at SRI. 7:30.

\* \* \*

NEW MEMBER CORNER: Kenneth R. Allen, WB6BCV, first licensed in 1962 now holds an Advanced Class license. Ken operates on 10, 15 and 40 meter phone and CW, but CW only when the mood strikes him. He is working toward getting a 2-meter rig on the Club net frequency of 145.45 MHz simplex so he can join the rag chew at 8:30 Monday evenings. Look for Ken on the HF bands and we're waiting for a new checkin on the Monday night gathering.

## PAARA ROSTER, MAY, 1981

-5-

Adachi, Richard R.	W6RVS	2 Coleman Place	Menlo Park,	CA	94025	
Aguilar, Liza	WA7WXA	P. O. Box 7410	Stanford,	CA	94305	
Alexander, Mike	KA6GRU	355 Barton Way	Menlo Park,	CA	94025	324 9245
Allen, Ken	W6BCV	3784 Grove Avenue	Palo Alto,	CA	94303	
Anderson, Andrew J.	K6EHS	735 Mayview Avenue	Palo Alto,	CA	94303	494 0831
Arnold, John L.	WA6YSY	550 Morse Avenue	Sunnyvale,	CA	94086	
Bartelme, John P.	WA6AMC	1025 San Mateo Drive	Menlo Park,	CA	94025	323 6295
Baum, Douglas A.	KA5DQR	P. O. Box 993	Galveston,	TX	77553	
Baum, Robert A.	W6BFH	1043 Del Norte Avenue	Menlo Park,	CA	94025	325 0497
Brodie, D. H.	W6PGQ	315 Cotton Street	Menlo Park,	CA	94025	323 0353
Brown, Morris	N6DJM	140 Stone Pine Lane	Menlo Park,	CA	94025	
Brubaker, Alan A.	K6XO	34456 Colville Place	Fremont,	CA	94536	792 5736
Cady, Henry G.	W6PSY	P. O. Box 883	Clearlake Highlands,	CA	94061	
Callander, George	WA6SZX	51 Primrose Way	Palo Alto,	CA	94303	856 1752
Camp, Edwin K.		1161 Cloud Avenue	Menlo Park,	CA	94025	854 5640
Canham, Fred F.	K6YT	691 Casita Way	Los Altos,	CA	94022	948 9238
Cary, Charles E.	KA6CZN	940 Arbor Road, Apt. C	Menlo Park,	CA	94025	323 6401
Chan, Loren B.	WA6ENC	6182 Ocho Rios Drive	San Jose,	CA	95123	629 1852
Chandler, Frank	WB6QPV	1040 Menlo Oaks Drive	Menlo Park,	CA	94025	322 7678
Chiappari, Ronald F.	N6AUV	113 Foxwood Road	Portola Valley,	CA	94025	
Churchill, Paul K.	W6QBY	3706 W. Pacific Cst. Hwy.	Ventura,	CA	93001	
Clark, Ed	W6KJI	3657 Oak Knoll Drive	Redwood City,	CA	94062	366 1817
Cline, Jack	K6JK	3527 Arbutus	Palo Alto,	CA	94303	493 5620
Collins, H. R. (Dick)	K6ANN	1921 Birch Avenue	San Carlos,	CA	94070	593 8592
Conboy, Terry	N6RY	2631 S.W. Orchard Hill Pl.	Lake Oswego,	OR	97034	
Crocker, Earl W.	W6VYC	224 Selby Lane	Atherton,	CA	94025	366 2790
Croft, William	WD9ADG	22 Coleman Av. Apt. 20	Menlo Park,	CA	94025	
Curry, Daniel L.	WB6STW	166 Midwick Drive	Milpitas,	CA	94035	
Daniel, Dave	KB6WP	240 University Avenue	Menlo Park,	CA	94025	325 3347
DeLiban, Robert	W6FGL	1015 Lemon Street	Menlo Park,	CA	94025	322 6906
Dorrance, David	WA6YSO	1216 Fernside Street	Redwood City,	CA	94061	
Doster, Landry G. (Dusty)	K6MPN	966 Glennan Drive	Redwood City,	CA	94061	368 8156
Dwight, Kenneth W.	WA6NYB	2371 Carmel Drive	Palo Alto,	CA	94303	856 0727
Dwight, Marilyn	DW1GHT	2371 Carmel Drive	Palo Alto,	CA	94303	856 0727
Edberg, Eric B.	W6DU	461 Heather Court	Los Altos,	CA	94022	948 1748
Edgerton, Millard J.	WA6VZZ	49 Showers Drive	Mountain View,	CA	94040	965 6433
Edson, Willard		2165 Carmelita Drive	San Carlos,	CA	94070	
Elge, Al	AG6D	1710-A Marshall Court	Los Altos,	CA	94022	969 1083
Fairbanks, Edmund U.	W6ADN	1049 Sonoma Avenue	Menlo Park,	CA	94025	322 0319
Famulener, Keith	WB6GYT	2380 Waverly Street	Palo Alto,	CA	94301	326 8673
Ferranti, Richard L.	WA6NCX	215 Herrick Road	Newton Center,	MA	02159	
Finkbeiner, Dick	W6AQL	267 Bonny Street	Mountain View,	CA	94043	961 6655
Fraher, John	KA6FRK	23000 Cristo Rey Drive	Los Altos,	CA	94022	967 3822
Frye, William		536 Lincoln Avenue	Palo Alto,	CA	94301	326 2610
Gallagher, Robert J.	KA6IRT	1378 Ensenada Way	Los Altos,	CA	94022	968 0847
Godwin, Myron R., Jr.		720 Coleman Avenue	Menlo Park,	CA	94025	322 1737
Gordano, John	K6JJU	1731 Alameda de las Pulgas	Redwood City,	CA	94061	368 0483
Harper, David	WB6JFH	Route 1, Box 287B	Deer Park,	WA	99006	
Harper, Walter		Route 1, Box 287B	Deer Park,	WA	99006	
Hartwell, James W.	K7UDG	1777 Woodland Ave. Apt. 38	Palo Alto,	CA	94303	325 8309
Hausafus, Edward T.	WA6FSQ	467 Encina Avenue	Atherton,	CA	94025	366 5640
Hill, Robert	W1ARR	2447 Alvin Street	Mountain View,	CA	94043	969 2122
Hinton, Peter D.	WD6GVP	33 Maple Avenue	Atherton,	CA	94025	
Hotz, Preston E.	K6WD	209 Blackburn Avenue	Menlo Park,	CA	94025	325 8900
Ice, George E.	K6CMT	855 Sommerset Court	San Carlos,	CA	94070	593 0661
Jenkins, Bill	WB6LML	2360 St. Francis	Palo Alto,	CA	94303	
Jenson, Alan S.	W6UVP	2312 Santa Ana	Palo Alto,	CA	94303	856 6274
Johnson, Don	W6AAQ	809 Capay Street	Esparto,	CA	95627	
Kanthack, Kurt H.	WD6BGV	165 Stonepine Lane	Menlo Park,	CA	94025	
Katz, Nolan	KB6LT	1030 Silverhill Road	Redwood City,	CA	94061	366 7286



Keely, Cliff	KA6JWA	766 Canyon Road	Redwood City,	CA	94062	
King, William R.	N6CHI	875 Sunset Drive	San Carlos,	CA	94070	595 0258
Kirkley, Charles R.		P.O. Box 3694, Dept PAAR	Stanford,	CA	94305	
Korsak, Andrew J.	VE3FZK	504 Lakemead Way	Redwood City,	CA	94062	366 5228
Krawetz, Howard M.	N6HHM	654 Barnsley	Sunnyvale,	CA	94087	739 7936
Lapp, Kevin	WA6FHC	1096 Connecticut Drive	Redwood City,	CA	94061	364 2654
LarRieu, Barry	WA6UIM	P. O. Box 752	Menlo Park,	CA	94025	326 2020
Larson, R. Alan	WA6AZP	700 Arbor Road, Apt. 3	Menlo Park,	CA	94025	326 6430
Lazier, John K. D.	W6HBJ	950 Blair Court	Palo Alto,	CA	94303	326 0594
Lile, Irene	WB6RAF	154 Wayside Road	Portola Valley,	CA	94025	851 7473
Lile, Shannon	K6TNY	154 Wayside Road	Portola Valley,	CA	94025	851 7473
Liljegren, Gary	W6SH	P. O. Box 73	Des Moines,	IA	50301	277 1111
Lin, David	N6WN	892 Mango Avenue	Sunnyvale,	CA	94087	
Lockhart, Robert J.	N1AFN	P. O. Box 1026	Mountain View,	CA	94042	854 5426
Maceijowski, Antoni	WA6KJJ	734 Ashbourne Drive	Sunnyvale,	CA	94087	739 1145
MacKaig, Mac	N6YV	651 Teredo Drive	Redwood City,	CA	94065	
Magnuski, H. S. (Hank)	KA6M	311 Stanford Avenue	Menlo Park,	CA	94025	854 1927
Martin, Hank	W6UCE	3283 Kipling Street	Palo Alto,	CA	94306	493 9046
McClearn, Bob	WA6CPV	6291 Rubicon Avenue	Newark,	CA	94560	
McDermott, Charles B.	KA6NDX	349 San Luis Avenue	Los Altos,	CA	94022	941 6556
McElhinney, W. G. (Bill)	KA6LZI	666 Tennyson Avenue	Palo Alto,	CA	94301	325 9808
McEnnerney, Jack	W6LII	73 Ensenada Road	San Carlos,	CA	94070	591 8526
McGuire, David	W6JHU	5943 Tompkins Drive	San Jose,	CA	95129	
Moore, Harold F. (Hal)	W6DEF	286 Terrace Street	Auburn,	CA	95603	823 2600
Morton, Bob	WA6SOI	748 San Jude Avenue	Palo Alto,	CA	94306	
Moss, George E.	W6AZS	4049 Middlefield Road	Palo Alto,	CA	94303	
Murphy, William	W1YC	2005 Colony St. Apt. 11	Mountain View	CA	94043	
Nelson, Raymond A. (Ray)	KB6RZ	786 Allen Court	Palo Alto,	CA	94303	493 9251
Nicholson, Carl Jr.	KA6HKG	1167 Walnut	San Carlos,	CA	94070	592 5287
Nixon, George	GI3OEN	1140 Sherman Avenue	Menlo Park,	CA	94025	854 6445
Olson, Les	W6CBI	2125 Jardin Drive	Mountain View,	CA	94040	
Panton, Ronald A.	W6VG	5 Cedar Court	Menlo Park,	CA	94025	
Pierce, Cameron G.	K6RU	570 La Mesa Drive	Ladera	CA	94025	854 3055
Porter, Wallace (Wally)	K6URO	3328 Kenneth Drive	Palo Alto,	CA	94303	494 7038
Praft, James	N6IG	2605 Central Ave. Apt. C	Alameda,	CA	94501	522 3178
Rasmussen, Erwin A.	W6YPM	164 Lowell Street	Redwood City,	CA	94062	368 2558
Read, Walter A.	W6ASH	10371 Berkshire Drive	Los Altos,	CA	94022	948 6753
Roberts, John F., Jr.	W6QXP	Silent Key				
Roche, Curtis H. (Curt)	K6AL	3890 Louis Road	Palo Alto,	CA	94303	494 2643
Root, L. Eugene	WB6OOO	1340 Hillview Drive	Menlo Park,	CA	94025	323 2666
Ryan, Ralph B.	WB6NNL	1555 Middle Avenue	Menlo Park,	CA	94025	325 2213
Saunders, Jay	KA6KYA	1017 Fulton Street	Palo Alto,	CA	94301	328 1144
Schellenberg, Chris	WB6WBK	311 Oakwood Place	Menlo Park,	CA	94025	324 4591
Scherf, Thomas	K6JBR	411-B 5th Avenue	Redwood City,	CA	94063	365 4068
Schrauwen, Adrianus	KA6ATG	3155 Stockton Place	Palo Alto,	CA	94303	494 6256
Schumscher, Leonard J.	WA6HLE	902 Avon	Belmont,	CA	94002	591 4385
Sherrod, H. C. (Clay)	K5OSQ	1475 Woodberry Avenue	San Mateo,	CA	94403	
Shore, J. Neville, Sr.	K6OYN	4272 Suzanne Drive	Palo Alto,	CA	94306	493 6926
Simpson, Richard A.	W6JTH	3326 Kipling	Palo Alto,	CA	94306	494 9272
Smith, Dan	KA6LXE	2001 Valpariso Avenue	Menlo Park,	CA	94025	325 9995
Smith, Ron	K6GZA	650 Vue de Mar	Moss Beach,	CA	94038	
Stainback, A. W. (Al)	WA6GVP	805 Evergreen	Menlo Park,	CA	94025	
Starkey, Jerry	WA6LLJ	736 Philip Road	Los Altos,	CA	94022	964 6584
Stein, Seymour (Sy)	WA6ROM	13080 Lorene Court	Mountain View,	CA	94040	967 0362
Streib, Fred	W6NA	736 Garland Drive	Palo Alto,	CA	94303	326 7846
Struven, Warren C.	W6CB	101 Belvedere Avenue	San Carlos,	CA	94070	591 0125
Stuntz, Stephen E.	K6PS	164 Oak Court	Menlo Park,	CA	94025	322 4952
Sue, Jeffrey	WA6SLF	1016 Middle Ave. Apt. 1	Menlo Park,	CA	94025	321 7750
Swenson, Lloyd L. (Swede)	N6CHL	73 Adam Way	Atherton,	CA	94025	368 8503
Talbert, Elmer	W6PFC	2414 Read Avenue	Belmont	CA	94002	593 7320

Tallmon, W. B. (Bill)	W6DVB	355 Santa Margarita Avenue	Menlo Park,	CA	94025	326	0112
Taylor, Robert	KA6NAN	925 Waverly Street #101	Palo Alto,	CA	94301	321	5089
Tennissen, Thomas	KH6DZB	23000 Cristo Rey Drive	Los Altos,	CA	94022	967	3822
Thekan, Paul	WA6IJP	355 Rutherford Avenue	Redwood City,	CA	94061	367	1499
Tiffany, Willard D. (Tiff)	W6GNX	880 Coleman Avenue	Menlo Park,	CA	94025	324	4524
Topp, Don	W6CFZ	1092 Metro Circle	Palo Alto,	CA	94303	858	0225
Troster, John G. (Jack)	W6ISQ	82 Belbrook Way	Atherton,	CA	94025	854	3939
Tucker, Gerald H.	WA6LNV	1112 Ramona Street	Palo Alto,	CA	94401	326	4908
Vanover, James F.	KA6KJP	V.A. Medical Center	Battle Creek	MI	49016		
Vickery, Leslie	W6AKR	980 Third Avenue	Redwood City,	CA	94063	368	5175
Vosper, Larry	KA6DZM	P.O. Box 8398, SF Arpt.	San Francisco,	CA	94128	349	9374
Wagstaffe, Gerard	W6NIR	4 Robert S Drive	Menlo Park,	CA	94025	325	4670
Wallace, Robert E.	K6OL	240 Cervantes Road	Portola Valley	CA	94025	851	0249
Wardlow, Vance	W6FLE	1260 Bellair Way	Menlo Park,	CA	94025	854	0803
Wheeler, Robert	K6SEM	868 Elbridge Way	Palo Alto,	CA	94303	494	6549
Wilder, H. Kenneth	K6RB	58 Catalpa Drive	Atherton,	CA	94025	323	9953
Wortman, Leon	W6KTP	743 Holly Oak Drive	Palo Alto,	CA	94303	494	2613
Yelton, Perry	KD6ID	3401 E. Bayshore Road	Redwood City,	CA	94063	366	7880
Zaner, Bill	WB6IYS	885 Sharon Court	Palo Alto,	CA	94301	328	2677
Zobel, Jerome F.	W6ARA	877 Northampton Drive	Palo Alto,	CA	94303	322	0063

WD6AAS	Steve Runyon	N6HM	Howard Krawetz	WB6STW	Dan Curry
WD9ADG	Bill Croft	KD6ID	Perry Yelton	WA6SZX	George Callander
N1AFN	Robert Lockhart	N6IG	James Praft	K6TNY	Shannon Lile
W6AIN	Ed Fairbanks	WA6IJP	Paul Thekan	W6UCE	Hank Martin
W6AKR	Les Vickery	KA6IRT	Bob Gallagher	K7UDG	Jim Hartwell
K6AL	Curt Roche	W6ISQ	John Troster	WA6UIM	Barry LarRieu
WA6AMC	John Bartleme	KA6IXE	Dan Smith	K6URO	Wallace Porter
K6ANN	Dick Collins	WB6IYS	Bill ZanerK6JBR	W6UVP	Alan Jenson
W6AQL	Dick Finkbeiner	K6JBR	Tom Scherf	W6VG	Ron Pantan
W6ARA	Jerry Zobel	WB6JFH	Dave Harper	WB6WBK	Chris Schellenberg
W1ARR	Bob Hill	W6JHU	David McGuire	K6WD	Pres Hotz
W6ASH	Walt Read	K6JJU	John Gordano	N6WN	David Lin
KA6ATG	Andy Schrauwen	K6JK	Jack Cline	KB6WP	Dave Daniel
N6AUV	Ron Chiappari	W6JTH	Richard Simpson	WA7WXA	Liza Aguilar
WA6AZP	Alan Larson	KA6JWA	Clif Keely	K6XO	Alan Brubaker
W6AZS	George Moss	W6KJI	Ed Clark	W1YC	William Murphy
WA6BCH	Fred Wickman	WA6KJJ	Tony Maciejowski	W6YPM	Erv Rasmussen
WB6BCV	Ken Allen	KA6KJP	Jim Vanover	WA6YSY	John Arnold
W6BFH	Bob Baum	W6KTP	Leon Wartman	WA6YSO	David Dorrance
WD6BGV	Kurt Kanthack	KA6KYA	Jay Saunders	K6YT	Fred Canham
W6CB	Warren Struven	W6LII	Jack McEnnerney	N6YV	Mac MacKaig
W6CBI	Les Olson	WA6LLJ	Gerry Starkey	W6YVC	Earl Crocker
W6CFZ	Don Topp	WB6LML	Bill Jenkins		Ed Camp
N6CHI	Bill King	WA6LNV	Gerry Tucker		William Frye
N6CHL	Swede Swenson	KB6LT	Nolan Katz		
K6CMT	George Ice	WB6LVP	Neville Shore		
KA6CUG	John Buonocore	KA6LZI	Bill McElhinney		
WA6CVP	Bob McClearn	KA6M	Hank Magnuski		
WD6CVP	Peter Hinton	K6MPN	Dusty Doster		
KA6CZM	Charles Cary	KA6NAN	Rob Taylor		
AC6D	Al Elge	WA6NCX	Rick Ferranti		
W6DEF	Hal Moore	KA6NDX	Charles McDermott		
N6DJM	Morris Brown	W6NIR	Gerry Wagstaffe		
KA5DQR	Doug Baum	WB6NNL	Ralph Ryan		
W6DU	Eric Edberg	WA6NYB	Ken Dwitht		
W6DVB	Bill Tallmon	GI3OEN	George Nixon		
KH6DZB	Tom Tennissen	K6OL	Bob Wallace		
KA6DZM	Larry Vosper	WB6O00	Gene Root		
K6EHS	Andy Anderson	WA60PA	Gerry Laxon		
KA6EKG	Carl Nicholson	K5OSQ	Clay Sherrod		
WA6ENC	Loren Chan	K6OYN	Neville Shore		
W6FGL	Rob De Liban	W6PFC	Elmer Talbert		
WA6FHC	Kevin Lapp	W6PGQ	David Brodie		
W6FLE	Vance Wardlow	W6QBY	Paul Churchill		
KA6FRK	John Fraher	WB6QPV	Frank Chandler		
K6FS	Steve Stuntz	WB6RAF	Irene Lile		
WA6FSQ	Ed Hausafus	K6RB	Ken Wilder		
VE3FZK	Andy Korsak	WA6ROM	Sy Stein		
W6GNX	Tiff Tiffany	K6RU	Cam Pierce		
KA6GRU	Mike Alexander	W6RVS	Dick Adachi		
WA6GVP	Al Stainback	N6RY	Terry Conboy		
WB6GYT	Keith Famulener	K6SEM	Bob Wheeler		
K6GZA	Ron Smith	W6SH	Gary Liljegen		
W6HBJ	John Lazier	WA6SLF	Jeffrey Sue		
WA6HLE	Leonard Schumacher	WA6SOI	Bob Morton		



Vance Wardlow, W6FLE, is one of the longest term PAARA members, dating back to 1936. Licensed since 1926 makes Vance an old timer; he holds an Extra Class license. An eleven year Editor of PAARAgaphs, Vance always encouraged members to PARTICIPATE (as Vance would print it) in Club activities. He largely succeeded; success which has shown in PAARA growth.

A. W. Stainback, WA6GVP, was first licensed in 1959 and holds a General Class license. His "Classic Drake" station keeps 15, 20 and 40-meters busy.

John Gordano, K6JJU, was first licensed in 1956 as a General Class licensee. He's pretty well supplied with both HF and 2-meter gear though not yet heard on the Monday night session of the PAARA group. He works 40-meters phone and CW, is active enough on 6-meters to have WAS there, and also uses 2-meters effectively. His interests are DX, cont ests, and FD—and VHF. John has a preference for technical talks at the meetings and if movies can accompany them he likes them more.

We've no past Club history on John, so he turns out to be our "new" member this month. Look for him at the May meeting while you reacquaint yourselves with Ken, Vance and Al.

CUT AND PASTE CORNER: The above are included in the May roster. Look for lots of entries next month when all the mistakes are unveiled.

WALKERS CORNER: On April 4th about 150 walkers and joggers, supported by churches and other groups and individuals traversed an eleven mile circuitous route through Palo Alto, Menlo Park and East Palo Alto.

This walk was monitored by seven of our members, 2-meter mobile control by WA6FSQ, W6AIN, W6BFH, K6EHS, N6CHL and by K6FS on bicycle. W6KJI monitored base to furnish immediate telephone service if required.

The exercise was an unqualified success and raised an estimated \$7500 to \$10000 to help hungry and needy people in our area through the numerous food closets of the Ecumenical Hunger Program.

All those returning at the end of the walk were greeted with hot soup, home made bread and a program of music by the Stanford Research "Institooters" and the Stanford Gospel Choir.

Many thanks for a job well done.

+++ \*73s, N6CHL,

PICNIC CORNER: PAARA SPRING PICNIC—SUNDAY, APRIL 26

HUDDART PARK

MIWOK SHELTER

10AM - 2PM Admission \$2 per car

Bring your own food

PAARA will provide DOOR PRIZES,

Charcoal fire,  
Soft drinks,  
Coffee,  
Beer.

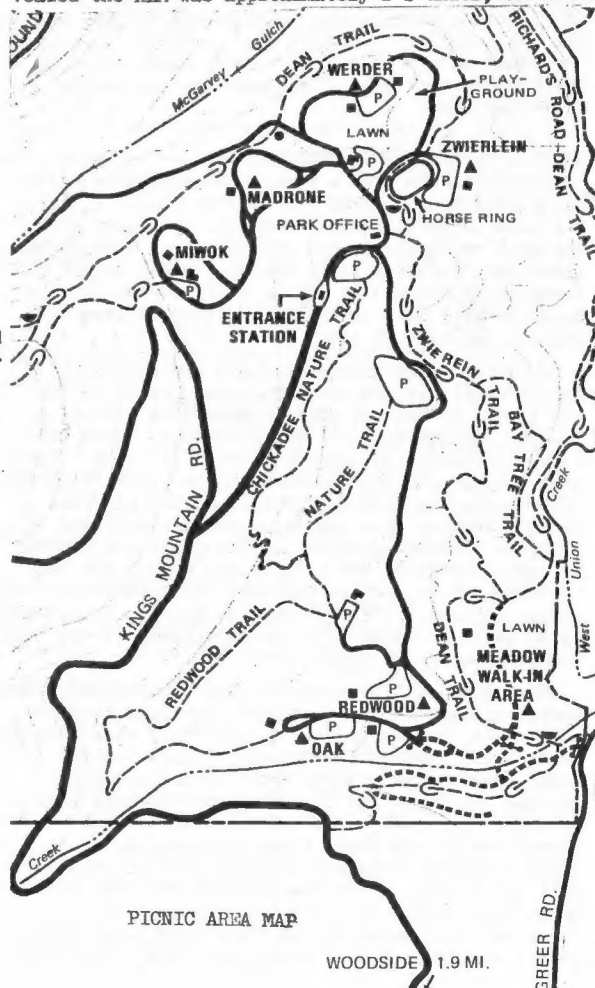
No dogs allowed in the park.

THE ANTENNA FARM: A new strong signal has been added to the list of local pileups. On Saturday, March 14, Dave, KB6WP, with the help of PAARA members, put up a KLM-34A tri-bandner.

A last minute check of critical dimensions revealed the front driven elements were short by 1 1/2 inches. A quick fix and the aluminum cloud was ready. Those helping Dave, and Chief Engineer Fred, K6YT, and in the order of arrival were Swede, N6CHL; Bob, W6BFH; Doug, KA5DQR, making an exclusive trip from Texas via Baltimore; Bill, N6CHI; and Lou, K6TMB.

A near disaster occurred when, with boom resting on shoulders, K6YT and W6BFH found Dave had mounted the boom plate upside down.

Four hours after initial donuts and coffee, the crew were ready for some suds and a trial run. The KLM-34A now perched at 23 feet and below a KLM-16C on the Tristao crank-up was ready. Initial efforts to load up the TS-120 with full RF failed, the culprit a dirty 10-meter band switch. After correcting the problem a signal report from Mississippi revealed the KLM was approximately 2 S units, or 12 db



below a comparison check on a converted CB PDL II two element quad.

A check of VSWR on Sunday indicated total frequencies covered, with the exception to 28.0 to 28.2 were less than 1.5 to 1. A second signal report from S. Dakota confirmed the earlier 10-meter report. However reports on 15 and 20 should be higher than previously received on the 4BTV.

Many thanks to all that participated. Anyone game for a x-rated modification?

de Dave, KB6WP.

+ + +

TO CONTINUE: Ed, W6KJI, is continuing his search for material to enable him to raise his tower to its full height so he can reach out farther on the Pacific Maritime Net (Monday thru Friday, 2140MHz, 2215Z).

AND MORE: Erv, W6VPM, is looking for a tower climber to replace a locking bolt that keeps his antenna looking in the direction the box below says it is.

" " "

FOR FLUNG CORNER: A nice little note from Gary, W0SH, with a contribution to PAARAgaphs (see below), his 1981 dues, and the news that he'll be back to our "land of milk and honey" again soon. We will be looking for more words from Gary—and to see him at a meeting soon.

o o o

#### PARTIAL REINFORCEMENT CORNER:

Psychologists have a term which describes reaching a goal or achieving a goal part of the time. The term is partial reinforcement. It means that the goal or object is not realized each time it is attempted, but that it is realized often enough that learning is successful and in fact, may occur at least as fast in a learning situation as when the goal is reached and every time.

What does this have to do with amateur radio? That's easy.....it's the way things happen on the air in the pursuit of QSOs. UNLESS the ham has a BIG GUN STATION with all the trimmings. Then it's almost automatic.....have you ever felt like I have when I have called a DX station with my KW, big beam, tall tower, low loss feedline...and had him come back to someone else instead...and be irritated because my timing was right, my frequency was right, my operating style was good....and he had the nerve to come back to another station! Expectation = 100% return on calls! Partial reinforcement? No...that is an expectation of 100% reinforcement. Where does "fun" figure in on this?

Now consider the possibility of partial reinforcement: Using that same big beam, low loss feedline, tall tower, proper operating, and run 1 watt output.. (with solar power for example). I have had the delight recently of using a Heath HW-8 rig barefoot and had the great fun of having good DX come back to my call. I worked a UR2 the other night with a 569 report for me and there I sit, running around 3 watts input on 20 cw and probably not more than a watt and a half out of the rig into the 130' run of RG-8u foam coax. No...I did not get him on the first call....I think it was the second...but FUN... yes it was fun. I have heard hams talk about real

QRP for years, but I submit to you that you ought to try it. Let the KW rest in the corner for a while. See if you can work WAC in a week with 5 or 10 watts or less. Partial reinforcement? Yup....they don't come back on the first call...but the pleasure when they do come back is greater...at least to me it is.

PARTIAL REINFORCEMENT = 1 watt + DX = FUN

73 es DX .... Gary W0SH

o o o

CONTEST CORNER: Work Switzerland 1500Z April 25 until 1500Z April 26 and/or try Spain in the Trophy H. M. King of Spain Contest from 2000Z April 25 until 2000Z April 26 (but not during the Club picnic!).

For closer to home, the Utah QSO Party will run 24 hours UTC April 25, and County Hunters SSB Contest from 0001Z May 2 until 2400Z May 3.

Then go far afield again with the Alexander Volta RTTY Contest where they give multipliers if you manage to work EXCC during the contest. And the World Telecommunications Day Contest May 9 on phone and May 16 for cw. The CQ-M Contest will let you work more Russians in an hour than you normally could in weeks from 2100Z May 9 to 2100Z May 10.

But don't try to but in on the Rocky Mountain Division QSO Party because they accept only Colorado, New Mexico, Utah and Wyoming stations.

On the 30th and 31st of May comes the second half of PAARA's contest, the CQWW WPX Contest, cw, and the Iberoamerican Contest (phone)

It would be fun to try them all QRP to see what would happen.

+ + +

#### UNCLASSIFIED CORNER: This space is available.

- FOR SALE: Heath Digital meter (Im1210), factory assembled; \$50.
- WANTED: Interested in (cheap) 450 mobile rig. If you have or need, call Robert Taylor, KA6NAN at 321 5089 or see him at the meeting.
- FOR SALE: Ten Tec Century 21 HF Transceiver with digital display—full break-in—full 10 meter capabilities. \$400. Rob, KA6NAN.
- FOR SALE: Lafayette Short Wave Receiver. Solid state, AM-CW-SSB. HA-600A. Make offer. See Karl, KA6JIR or call 494 6468.
- FOR SALE: CPI Frequency Counter, receive/transmit \$100. See Dave, KB6WP.
- HAMFEST: Fresno, California, May 15-17, 1981. Always one of the best anywhere. Ham radio, golf, wine tasting, flea markets, and NOW! The Ladies Luncheon is now a MENS and Ladies luncheon from 11:30 to 1:30 p.m. with a live comedy act. See flyers and announcements everywhere.

# HEATHKIT ELECTRONIC CENTER

## 2001 MIDDLEFIELD RD.

### REDWOOD CITY, CA 94063

#### 415 365 8155

**NEW**

### 1 75-Watt All-mode VHF Base Amplifier is great for use at home or for your repeater

**\$279<sup>95</sup>**

- Work the ones you hear — 10 watts input produces a hefty 75 watts (nominal) out
- Makes a great repeater amplifier!
- Rugged solid-state design
- Operates FM, SSB and CW

If your 2-meter transceiver has a hot receiver like the one on the VF-7401 (opposite page), you probably hear stations who can't hear you. The new Heathkit VL-2280 All-mode Base Amplifier will solve that problem for you, giving you a hefty 75-watt (nominal) signal for just 10 watts in. The VL-2280 even has a plug in the back to power your VF-7401 or other make transceiver, so you don't need a separate power supply. And if your club needs to update its old vacuum tube amplifier and replace it with solid state reliability the VL-2280 is an excellent choice for a repeater amplifier. It can be operated on 120 VAC, 240 VAC or even 12 VDC back-up battery power.

The Hams at Heath have engineered the new VL-2280 to operate in all modes, too — SSB, FM or CW. IMD products, incidentally, are very low when the amplifier is used on sideband. The VL-2280 operates across the entire 144 to 148 MHz amateur 2-meter band. Broad-band circuitry maintains a stable power output across the entire band, too. This big amplifier has extra-large heat sinks to provide more-than-adequate cooling, giving you a 50% duty cycle and more "on" time. And the VL-2280 has a convenient standby/on switch so the exciter can be operated barefoot!

The illuminated front-panel meter allows you to monitor drive power, power output or relative DC voltage. The VL-2280 is DC voltage regulated, by the way. This rugged amplifier features excellent harmonic rejection and RF-sensed or remote keying. To give you maximum receiver sensitivity, insertion loss has been kept to less than 0.6 dB. The extremely rugged design is housed in a military style cabinet measuring 5½" H x 13¼" W x 16½" D. Alignment is simple, requiring only an exciter such as the VF-7401, and a wattmeter that reads forward and reflected power, like the HM-2141 on page 21. Building the VL-2280 75-Watt All-mode Base Amplifier is an enjoyable three-evening project.

### 40-Watt Amplifier increases your range on 2-Meters

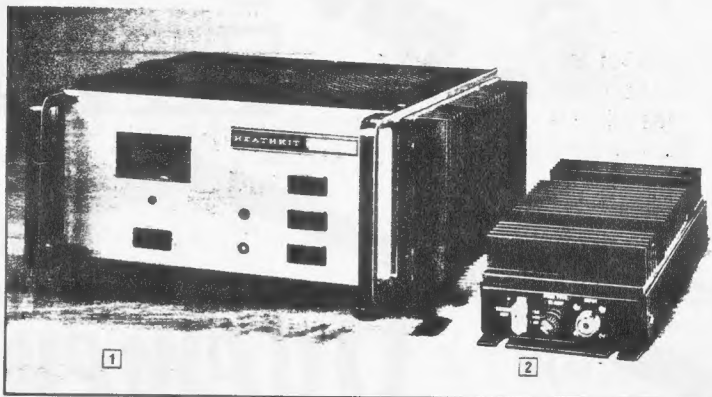
**\$59<sup>95</sup>**

The HA-202A 40-Watt Amplifier increases your 2-meter fun with a solid 40 watts minimum for just 10 watts in. Features completely automatic T/R switching. Tuned input/output circuits keep spurs low. Special emitter ballasted configuration withstands VSWRs of up to 3:1. Internally adjustable to cover any 1.5 MHz portion of the 143-149 MHz band. Alignment requires VTVM, wattmeter or SWR bridge.

Kit HA-202A, Shpg. wt. 4 lbs. .... 59.95  
HDZ-63-3, 3 ft. Coax. w/conns., 1 lb. .... 4.95



FREE delivery, within 50 miles of store, for phone charge orders that ship UPS.



Kit VL-2280, Shpg. wt. 30 lbs. .... 279.95  
HDZ-63-3, 3 ft. Coax. w/conns., 1 lb. .... 4.95

**VL-2280 SPECIFICATIONS:** Band coverage: 144 to 148 MHz. Power input: 1 to 10 watts SSB, FM or CW. Input VSWR: (@ 10 watts drive) 2.0:1 or less. Power output: 75 watts @ 10 watts drive. Duty Cycle: 50%, 10 minutes on, 10 minutes off. Insertion Loss: (Antenna to Receiver) less than 0.6 dB. IMD Distortion: -24 dB. Power Requirement: 120 VAC at 4 amperes; 240 VAC at 2 amperes; 12 VDC at 11 amperes. Dimensions: 5½" H x 4¼" W x 10½" D (13.97 x 11.75 x 26.67 cm).

**NEW**

### 2 VL-1180 75-watt 2-Meter Amp puts your mobile in range of more repeater fun

**\$139<sup>95</sup>**

- 10 watts in gives you 75 watts out on 2-meter FM, SSB or CW
- Features rugged, solid-state design for mobile use

You're driving down the highway and can hear a 2-meter station, but you can't work him. Then you switch on your Heathkit VL-1180 All-Mode, 75-

Watt Mobile Amplifier. Your 10 watts in is transformed into 75 watts of QSO-grabbing power...and you're in business!

The new VL-1180 Mobile Amplifier, like the VL-2280 described left, has been engineered to operate in all modes — single sideband, FM or CW — across the entire 144 to 148 MHz 2-meter band. Power output is stable across the entire band, thanks to broad-band circuitry. And you get a 50% duty cycle for more "on" time because extra-large heat sinks provide more than adequate cooling. Insertion loss is less than 0.6 dB, and the VL-1180 boasts excellent harmonic rejection, plus RF-sensed or remote keying. The Amplifier's rugged design means you can install it in your car's trunk or other out-of-the-way location without worry. The easy-to-build VL-1180 is a two-evening kit, and alignment is simple, too. Get your VL-1180 today for more 2-meter mobiling fun.

Kit VL-1180, Shpg. wt. 5 lbs. .... 139.95

**VL-1180 SPECIFICATIONS:** Band Coverage: 144 to 148 MHz. Power input: 1 to 10 watts SSB, FM or CW. Input VSWR: (at 10 watts drive) 2.0:1 or less. Power output: 75 watts (typical). @ 10 watts drive. Duty Cycle: 50%, 10 minutes on, 10 minutes off. Insertion Loss: (Antenna to Receiver) less than 0.6 dB. IMD Distortion: -24 dB. Power Requirement: 13.6 VDC (operates 11.5 to 16 VDC), 10 watts nominal at 75 watts. Dimensions: 2½" H x 4¼" W x 10½" D (6.3 x 11.8 x 26.7 cm).

### AC Supply for your 2-Meter transceiver/amp combo

**\$84<sup>95</sup>**

The PS-1175 supplies the necessary voltage and current to power the VF-7401 Transceiver/HA-202A Amplifier combination (or most other makes) from 120/240 VAC. Output voltage internally adjustable between approx. 12 and 14.5 VDC. Output current is 10 amps, intermittent, 10 minutes max. (5 amps continuous). Darington circuit gives exceptionally high gain for excellent regulation. Fused for overload protection. Comes with 3-wire line cord. 5¼" H x 6¼" W x 11" D. As with all our kits, even includes solder.

Kit PS-1175, Shpg. wt. 15 lbs. .... 84.95

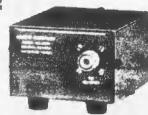


### 10-Watt Amplifier gives your hand-held clout!

**\$44<sup>95</sup>**

The HA-201A 2-Meter Amp will get your hand-held into your favorite repeater full-quieting every time, delivering up to 10 watts for a mere 1½-watt in. Or 8 watts out for just 1-watt in. Great with the VF-2031, p. 12. Fully automatic operation with solid-state T/R switching. Tuned input and output for maximum efficiency, reduced spurs. Withstands infinite VSWR. Includes dummy load, RF detector. VTVM mounted for tune-up. Requires 12-16 VDC power source. 2¾" H x 5¼" W x 5¼" D.

Kit HA-201A, Shpg. wt. 2 lbs. .... 44.95



AMATEUR RADIO



# Quement Communications Department

**Complete communications service  
under one roof.**

**Amateur, CB, commercial, installation  
and repair all in one department.**

**Bring all your communications needs  
to us. We will be pleased to assist you!**



**QUEMENT  
ELECTRONICS**

1000 SO. BASCOM AVE.  
SAN JOSE, PHONE 938-5900  
Open Mon.-Sat. 9-6